



NEW HAMPSHIRE NATURAL HERITAGE BUREAU

DIVISION OF FORESTS & LANDS - DNCR

172 PEMBROKE ROAD, CONCORD, NH 03301

(603) 271-2214 <https://www.nh.gov/nhdfl/>

April 2, 2020

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NH Department of Transportation
PO Box 483
7 Hazen Drive
Concord, NH 03302-0483

RE: Exit 4A, Derry-Londonderry, 13065

This memo is to summarize coordination between the NH Natural Heritage Bureau (NHB) and the NH Department of Transportation (NHDOT) relative to potential rare plant species impacts from the construction of a new exit (4A) on Interstate 93 in Derry and Londonderry.

NHB provided various DataCheck letters throughout the development of the project, and shared digital database records through a Data Sharing Agreement. This data was used to inform rare plant survey planning and protocols.

Rare plant surveys were completed for this project in 2016, and no rare plant species were documented. However, the 2016 DataCheck for this project, NHB16-0960 (dated 4/4/2016), did not include Nuttall's reed grass (*Calamagrostis cinnoides*; synonym *Calamagrostis coarctata*), since the nearby record for this species was not added to the NHB database until 6/21/2016. During 2018 coordination on this project, NHB recommended that pre-construction surveys occur in any areas of appropriate habitat that would be impacted by the project.

This obligate wetland species generally occurs in open wetlands including peatlands, wet meadows, semi-disturbed areas (e.g., along railroad tracks), wetland edges, and utility rights-of-way. The nearby record for the species is within a utility right-of-way. The following NHB database excerpt describes the habitat of the nearby Nuttall's reed grass (*Calamagrostis cinnoides*) occurrence:

“Wet areas in powerline right-of-way. Associated plant species include gray birch (*Betula populifolia*), wrinkle-leaved goldenrod (*Solidago rugosa*), red maple (*Acer rubrum*), meadowsweet (*Spiraea alba* var. *latifolia*), and sweet-fern (*Comptonia peregrina*).”

While this is not the only possible habitat or suite of associated species, this information can inform target survey locations within the project area. The areas most likely to support Nuttall's reed grass (*Calamagrostis cinnoides*) are in Londonderry, just east of I-93, where a section of new proposed roadway would cross through three segments of utility right-of-way. NHB recommends that surveys occur in all wet meadows, edges of wetlands, and PEM/PSS wetlands within the utility right-of-way, as well as any additional habitats that are identified.



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This species Nuttall's reed grass (*Calamagrostis cinnoides*) is in fruit from August to October; mature fruit is necessary to identify the species. NHB recommends that a botanist experienced in grass identification complete the survey for this species. Note: links to information about species identification and ecological characteristics are included on page three, below.

If the species Nuttall's reed grass (*Calamagrostis cinnoides*), or any other listed species, is identified within the project area, please complete a rare species reporting form and document the population using GPS, then contact NHB.

- If plants are found within the project area but outside of impact areas, contact NHB to discuss whether installation of protective orange fencing during construction may be warranted.
- If plants are found within the project area, with a small proportion (less than 10%) within impact areas, contact NHB to discuss. NHB may request seed collection instead of attempting to transplant whole plants, in the event that a small proportion of the overall reproductive population would be impacted. Depending on the extent and nature of the impacts, NHB may request follow-up monitoring to determine if the project would have additional indirect (e.g. hydrological) impacts on the population.
- If plants are found within the project area, with a larger proportion (greater than 10%) within impact areas, contact NHB to discuss. NHB may request transplanting impacted plants in the event that a larger proportion of the overall reproductive population would be impacted. Depending on the extent and nature of the impacts, NHB may request follow-up monitoring of the remaining (non-transplanted) plants, to determine if the project would have additional indirect (e.g. hydrological) impacts on the population.

The Project also involves the relocation of Trolley Car Lane stream, which is located along the west side of I-93, north of the Ash Street/Pillsbury Road bridge over I-93. This restoration project may provide an opportunity and habitat for transplanting impacted Nuttall's reed grass plants. Please contact NHB to discuss further if there will be impacts to >10% of a documented rare plant population, as described above.

Thank you, and please contact me with any questions.

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Nuttall's reed grass (*Calamagrostis cinnoides*) identification and ecology resources:

<https://www.maine.gov/dacf/mnap/features/calcin.htm>

http://beta.semanticfna.org/Calamagrostis_cinnoides

<https://gobotany.nativeplanttrust.org/species/calamagrostis/cinnoides/>

https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.149330/Calamagrostis_coarctata